

REMARKS

I. Status of the Claims

Claims 1-63 were originally filed. In response to a restriction requirement, claims 1-18, 34, 35, and 61-63 were elected, whereas the remaining claims were withdrawn and later canceled. Claims 2, 3, 7, 9-18 were further canceled. Upon entry of the present amendment, claims 1, 4-6, 8, 34, 35, and 61-63 remain pending.

Claims 1 and 61-63 have been amended to recite that the receptor "binds a glutamate ligand, which induces GPCR activity." Support for the added phrase can be found in the specification, *e.g.*, on page 8 lines 8-12. No new matter is introduced.

II. Claim Rejections

A. 35 U.S.C. §101: Utility Rejection

Claims 1, 4-6, 8, 10, 11, 13, 17, 18, 34, 35, and 61-63 were rejected under 35 U.S.C. §101 for alleged lack of utility. Applicants respectfully traverse the rejection.

The present invention resides in the identification of the G-protein coupled receptor B3 (GPCR-B3). In the November 26, 2002, final Office Action, the Examiner took the position that the GPRC-B3 polypeptide lacks substantial utility, or a "real world" use, because the polypeptide is not described as to be involved in any particular aspect of the taste perception.

Applicants submit that GPCR-B3 is involved in a definitive aspect of the taste perception, as a component of an amino acid taste receptor. For example, the Nelson *et al.* reference entitled "An amino-acid taste receptor" (made of record as reference BE of the IDS filed on September 26, 2002) describes a heterodimeric GPCR of two subunits: T1R1 (*i.e.*, GPCR-B3) and T1R3, as an L-amino acid taste receptor prominently expressed in fungiform taste buds (left column of page 1). This reference fully supports Applicants' assertion that GPCR-B3 has a defined role in taste signal transduction. The specification provides, as one of the asserted utilities of GPCR-B3, its use for assaying for modulators of taste perception (*see, e.g.*, page 11 lines 8-19). Applicants contend that this asserted utility is a "real world" use, or a substantial utility, particularly in light of the Nelson *et al.* reference.

Accordingly, Applicants respectfully submit that the rejection based on alleged lack of utility should be properly withdrawn.

B. 35 U.S.C. §112 First Paragraph: Utility-Based Enablement Rejection

Claims 1, 4-6, 8, 10, 11, 13, 17, 18, 34, 35, and 61-63 were rejected under 35 U.S.C. §112 first paragraph for alleged inadequate enablement. The Examiner stated that since the claimed invention has no patentable utility, one of skill in the art would not know how to use the invention. As discussed above, the instant invention has sufficient utility under 35 U.S.C. §101. Applicants therefore respectfully request that the utility-based enablement rejection be withdrawn.

C. 35 U.S.C. §112 First Paragraph: Written Description Rejection

Claims 1, 6, 8, 10, 11, 17, 18, 34, 35, and 61-63 were further rejected under 35 U.S.C. §112 first paragraph for alleged inadequate written description. Applicants respectfully traverse the rejection in light of the present amendment.

In maintaining this rejection from a previous Action, the Examiner contended that the claim limitations, *i.e.*, hybridization characteristics and G-protein coupled receptor activity, do not limit the claimed subject matter to one adequately described, even though the Examiner agreed that hybridization characteristics do place limits on structures of the claimed polynucleotides. On the other hand, the Examiner asserted that “‘G-protein coupled receptor activity’ is a broad conceptual function and does not constitute an actual particular function” (first paragraph on page 6 of the November 26, 2002, final Office Action).

Applicants believe that the pending claims as amended fully comply with the written description as set forth in *University of California v. Eli Lilly & Co.*, 43 USPQ2d 1398 (Fed. Cir. 1997). As the Examiner has recognized, the hybridization characteristics provide sequence-based structural features commonly shared among the claimed polynucleotides. Moreover, the amended claims no longer recite “G-protein coupled receptor activity”; in its place is the recitation of binding of a glutamate ligand. Applicants submit that specific binding of glutamate is “an actual particular function” and not “a broad conceptual function.” This

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Amdt. dated September 19, 2003
Reply to Office Action of November 26, 2002

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functional limitation and the structural limitation defined by hybridization property together provide sufficient written description under 35 U.S.C. §112 first paragraph. The withdrawal of the written description rejection is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,


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